



Tradiție și Excelență prin
Cultură - Știință - Inovație din 1581



Young Researchers' International Conference on Chemistry and Chemical Engineering (YRICCCE V)

May 08-10, 2025

Babes-Bolyai University, Faculty of Chemistry and Chemical Engineering, Arany Janos 11,
RO-400028, Cluj-Napoca

Sponsors:



simbolul calității



YRICCCE V Scientific Program

Day 1 – Thursday, May 8th, 2025

Faculty of Chemistry and Chemical Engineering, Arany Janos 11

15:00 – 17:00	Registration
17:00 – 17:15	Opening
17:15 – 17:45	Plenary lecture 1 , chaired by Prof. Livia Simon Sarkadi / Prof. Katalin Várnagy Dr. habil. Elisabeta I. Szerb , Senior Researcher, CS I <i>"Coriolan Dragulescu" Institute of Chemistry, Timișoara, Romania</i> Electrochemical sensors based on ordered “soft” hybrid materials
18:00 – 21:00	Welcome Party , (Colegiul Academic, Emmanuel de Martonne 1)

Day 2 – Friday, May 9th, 2025

Faculty of Chemistry and Chemical Engineering, Arany Janos 11

09:00 – 09:30 **Plenary lecture 2, chaired by Prof. Anca Silvestru**

Dr. habil. József Kupai, Associate professor

BME Faculty of Chemical Technology and Biotechnology, Department of Organic Chemistry and Technology, Budapest, Hungary

Sustainable application and recycling of organocatalysts

09:30 – 12:45 **Oral presentations**

1st Session chaired by Dr. habil. Elisabeta I. Szerb

09:30 – 09:45 O1. Marțian Paul Cristian

Novel Cationic Covalent Organic Framework applied for Chloramphenicol detection

09:45 – 10:00 O2. Cătălina Diana Ușurelu

A study on the modification of nanocellulose with a naturally occurring aldehyde possessing antibacterial properties

10:00 – 10:15 O3. Mihály Mátyás Rudolf

Processes Behind the Enhanced Luminescent Chromium-Doped Zinc Gallate Nanocrystals

10:15 – 10:30 O4. Ana Varadi

ZnO nanostructures with different morphologies for supercapacitor applications

10:30 – 11:00 **Coffee break**

2nd Session chaired by Dr. Adrian-A. Someșan

11:00 – 11:15 O5. Rahaf Akel

Half-sandwich Type Platinum-group Metal Complexes of Isoxazol(in)e Glycoconjugates: Synthesis and Evaluation as Anticancer and Antimicrobial Agents

11:15 – 11:30 O6. Ioan Stroia

Artificial anion transmembrane transporters: from nitrate-selective to efficient chloride electrogenic and electroneutral transport

11:30 – 11:45 O7. Bertalan Varga

Electrostatic Immobilization of Cyclodextrins Containing Permanent Positive Charges – Wastewater Monitoring in Focus

11:45 – 12:00 O8. Alex Florin Isai

Boronic acids with self-assembling properties as potential candidates for artificial water channels

12:00 – 12:15 O9. Alshimaa I. Zaki

New Half-Sandwich Platinum-Group Metal Complexes with Hetaryl-Substituted N- and C-Glucopyranosyl-1,2,3-Triazole Chelators: Synthesis, Anticancer, and Antimicrobial Potential

12:15 – 12:30 O10. Aiman Aitkazina

Synthesis and Characterization of Polymer Conetworks from Sulfur-Containing Copolymers

12:30 – 12:45 Dr. Albert Soran CCDC

The CSD ecosystem - an overview of benefits from structural science.

13:00 – 15:00 Lunch break

15:00 – 16:45 Oral presentations

3rd Session chaired by Dr. Albert Soran

15:00 – 15:15 O11. Valeria Danilova

Application of new chelating resin in brine hardness removal to feed the chlor-alkali membrane cell process. I. Optimization using response surface methodology

15:15 – 15:30 O12. Andrea Bogyor

Clorhexidine digluconate adsorption studies

15:30 – 15:45 O13. Niloofar Bayat

Thermal Decomposition Pathways of Hexaamminecobalt (III) Dibromide Permanganate: Insights into Cobalt-Manganese Oxide Spinel Formation and Photocatalytic Intermediates

15:45 – 16:00 O14. Cătălin Eduard Şalgău

Heteroleptic diorganoselenides based on pyridine and pyrazole functionalities. Synthesis, structural characterization and coordination behaviour

16:00 – 16:15 O15. Robert Botea

Rational Design and Synthesis of Zn(II) Complexes with Polydentate Schiff Base Ligands

16:15 – 16:30 O16. Raffaele Fontana

Study on the reactivity of organobismuth(III) compounds towards ortho-quinones

16:30 – 16:45 O17. Marcell Tátrai

Morphological features dictate drug release from nanostructured borosilicate – alginate aerogels and xerogels

16:45 – 17:30 Poster session + coffee break

P1. Larisa Silveșan

Monitoring Reaction Kinetics in the Determination of Antioxidant Activities of Phenolic Compounds

P2. Sânziana-Maria Varodi

Encapsulation of Anthocyanins from Vaccinium vitis-idaea Extracts

P3. Sergiu-Raul Cosma

No Heme-Chlorite Adduct in the Catalytic Cycle of Chlorite Dismutase: Insights From QM/MM and Dynamics Calculations

P4. Alexandru Paul Rus

New Analytical Methods for Quantification of Hg Species in Soft Water Using HPLC-ICP-MS Technique

P5. Ana-Ioana Paris

LC-MS/MS method for the determination of perfluoroalkyl sulfonic acids in dehydrated sludge from wastewater treatment plants

P6. Eunice Fatoye

POLYACRYLIC ACID GEL-BASED ELECTROLYTES FOR RECHARGABLE Zn-AIR BATTERIES

P7. Aron Rop

*Rapid synthesis of Thermoresponsive PNIPA-*b*-PNAM Block Copolymers*

P8. Veronika Csilla Pardi-Tóth

Synthesis and Study of Multiblock Copolymers of Acrylamide Derivatives

P9. Nicoleta Sandu

Design and Synthesis of Poly-Functionalized Azides for “Click” Chemistry-Based Microscopy Applications

P10. Levente Biró

Synthesis of New Coumarin Derivatives

P11. Mihai-Alexandru Molența

1,3,4-Oxadiazole core as building block for fluorescent materials design

P12. Mihaela Tudorache

Assessment of the Antifungal Activity of Grape Pomace Extracts

P13. George Daniel Tudorache

The Prediction Performance of Statistical Models and Neural Networks in a Microgrid Based on Energy Consumption from Renewable Sources

P14. Eleonóra Kapronczai

Synthesis, Structure and Reactivity of a New Pyrazole-Containing Homoleptic Diorganotellurium(II) Compound

P15. Narcis-Teodor Niță

Biocomposite Materials Based on Sawdust Biomass and Natural Polymers: Synthesis, Characterization and Potential for Biosorption Applications

P16. Tudor Marius Ungurean

Synthesis and Characterization of Novel Azastibocine Halides

P17. Bradut Bogdan Minea

Pesticide and Heavy Metals Residues in Citrus Fruits: Human Exposure and Risks

17:30 – 19:00 Oral presentations

4th Session chaired by Dr. Niculina Hădade

17:30 – 17:45 O18. Diana-Oana Rusu

Photophysical studies on thin films of hybrid liquid crystalline materials based on an emissive metallomesogen

17:45 – 18:00 O19. Máté Benedek

Synthesis and electrochemical testing of polyacrylic acid based hydrogel electrolyte for Zn–air battery

18:00 – 18:15 O20. Bence András Sármezey

Thermoresponsive LCST-type Random Copolymers with PEG Methyl Ether Methacrylate of 1100 g/mol Molecular Weight: The Effect of Composition and the CST of the Homopolymers

18:15 – 18:30 O21. Ana Varadi

Defects Induced by Lithium in ZnO Nanorods Used for Supercapacitor Applications

Day 3 – Saturday, May 10th, 2025

Hotel Universitas, Pandurilor 7

09:30 – 11:00 Oral presentations

5th Session chaired by Dr. Alexandra Pop

09:30 – 09:45 Dr. Lavinia Buta MDPI

The World of Open Access and Ethics in Publishing

09:45 – 10:00 O22. Gabriela-Mădălina Oprică

The modification of nanocellulose with a sulfated polysaccharide: A physico-chemical study

10:00 – 10:15 O23. Gomaa Elsayed Amer

Coordination Chemistry Behaviour of Cu(II), Zn(II) and Ni(II) with Some Native and Phosphorylated Tau Protein Peptides

10:15 – 10:30 O24. Adrian Brânzanic

Intraprotein Electron Routes in Ascorbate/Caffeate - Myoglobin Systems

10:30 – 10:45 O25. Melinda Tamas

Structural aspects in organotin(IV) selenolates

10:45 – 11:00 O26. Darius Dumitraş

Synthesis, structural characterization and reactivity of new pyridine based organoselenium compounds

11:00 – 11:15 O27. Faareha Mazhar

Metal binding ability of tau (289-300) fragment

11:15 – 11:30 O28. Alexandru Vişan

Hybrid supramolecular ordered materials based on metallomesogens for electrochemical sensing

11:30 – 12:00 Closing remarks